UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 8

Docket No. **RCRA-08-2004-0003**

IN THE MATTER OF:	)	
	)	
Rhodia Inc.	)	**ADMINISTRATIVE ORDER**
P.O. Box 3146	)	**ON CONSENT**
Butte, MT 59702	)	
	)	
	)	
	)	
Respondent.	)	

Pursuant to Section 7003 of the Solid Waste Disposal Act, as amended, 42 U.S.C. § 6973.

I. JURISDICTION

The United States Environmental Protection Agency Region 8 ("EPA"), has the authority to issue and therefore is issuing this Administrative Order on Consent ("AOC") pursuant to Section 7003(a) of the Solid Waste Disposal Act, as amended (the "Act"), 42 U.S.C. § 6973(a) ("Section 7003").

Respondent Rhodia Inc. ("Rhodia") neither admits nor denies that EPA has either jurisdiction or the authority to issue an order pursuant to Section 7003 for the matters described herein, but agrees to conduct the work in the manner and timeframes described herein.

II. INTRODUCTION

A. Rhodia is a corporation authorized to do business in Montana.

B. Rhodia owns the Silver Bow plant located off German Gulch Road in Silver Bow County, approximately seven miles west of Butte, Montana and approximately one mile south of Ramsey, Montana ("Plant"). Rhodia and its predecessors in interest conducted beneficiation and mineral processing operations at the facility to produce elemental phosphorus. A parcel of land north of German Gulch Road was previously owned by Rhodia and is referred to herein as "Parcel 26." A part of Parcel 26 lies in the floodplain of Silver Bow Creek, and a part is not in the floodplain.

C. An inactive, below-grade wastewater concrete discharge pipe ("Pipe") runs from the operations area of the Silver Bow Plant, under German Gulch Road, and through Parcel 26.

D. In 1979, elemental phosphorus was found in the creek downgradient of the Pipe. Rhodia searched the Creek from the discharge point downstream to Fairmont Hot Springs and removed the elemental phosphorus material found. The discharge point of the Pipe was covered with slag.

E. Constituents that may have been conveyed through the Pipe by the waste water streams include elemental phosphorus.

F. During the construction season of 2004, the State is expected to conduct remedial actions in a portion of the floodplain of the Creek that includes the area of the floodplain that the discharge from the Pipe ran through. This AOC addresses the remainder of the Pipe that is not in the floodplain.

G. Based on evidence received, EPA has determined that the handling of solid waste in the Pipe by Rhodia's predecessors in interest may present an imminent and substantial endangerment to health or the environment within the meaning of Section 7003 of the Act, 42 U.S.C. § 6973, if the constituents associated with the pipe were to impact Parcel 26 after the State's remedial actions are completed.

H. EPA hereby takes this action pursuant to Section 7003 having determined that the issuance of this AOC is necessary to protect health or the environment.

I. Pursuant to Section 7003(a) of the Act, EPA has notified the State of Montana of this matter.

III. PARTIES BOUND

A. This AOC shall apply to and be binding upon Rhodia, including all agents, employees, firms, corporations, contractors, and consultants acting under or on behalf of Rhodia in connection with implementation of this AOC.

B. Rhodia shall provide a copy of all applicable portions of any plan submitted pursuant to this AOC to all contractors, subcontractors, laboratories, and consultants retained to conduct or monitor any portion of the work performed under the AOC within seven (7) calendar days of the date of such retention and shall condition all such contracts on compliance with terms of this AOC.

IV. FINDINGS OF FACT

A. Rhodia is a corporation doing business in the State of Montana.

B. Rhodia owns the Silver Bow Plant located off German Gulch Road in Silver Bow County, approximately seven miles west of Butte, Montana and approximately one mile south of Ramsey, Montana. Rhodia and its predecessors in interest conducted beneficiation and mineral processing and other operations at the facility to produce elemental phosphorus.

C. Mineral processing operations ceased in 1997, and Rhodia has since dismantled most of the plant structures.

D. A parcel of land north of German Gulch Road was previously owned by Rhodia, and is referred to as "Parcel 26." Parcel 26 is located in Township 3 North, Range 9 West, Section 23. The southern boundary of Parcel 26 is approximately German Gulch Road; the northern boundary is approximately Silver Bow Creek; the eastern boundary is the east edge of Section 23; and the western boundary is the west edge of Section 23. The northern end of Parcel 26 is in the floodplain of Silver Bow Creek.

E. A wastewater discharge pipe ("Pipe") runs from the operations area of the plant, under German Gulch Road, and through Parcel 26. The pipe is about 2 - 6 feet below grade and covered with dirt and slag.

F. From the date it was issued until 1975, a water discharge permit issued by the State addressed the discharge of storm water, septic, and cooling water from the plant to the Creek via the Pipe. Discharge to the Creek ceased in 1975 when a new septic system and pumping station were completed.

G. Constituents that may have been conveyed through the Pipe by the wastewater streams

include elemental phosphorus.

H. Elemental phosphorus can cause thermal injury when skin contact is made directly. It is extremely toxic when absorbed through these burned areas or when inhaled or ingested. Pure, dry elemental phosphorus combusts spontaneously on contact with air. When combined with water, elemental phosphorus will form strong acids or release phosphine gas depending upon the oxygen content of the water, the pH and temperature. Inhalation of phosphine gas above certain levels and for certain periods is acutely harmful and is a severe health hazard because such exposures may cause damage to respiratory membranes, resulting in increased bronchial secretions, shortness of breath, weakness, fatigue, dizziness and fainting. Abdominal pain and vomiting may also occur. Above certain levels and for certain periods phosphine is a central nervous system depressant and is toxic to the kidneys, resulting in albuminuria and hematuria. Lethal exposures result in pulmonary edema, convulsions and coma. Chronic exposures may result in permanent disturbances of sight, speech, motor functions and skeletal injuries. Phosphine is also highly flammable and combusts in the air depending on concentration and temperature.

I. Silver Bow Creek and its floodplain are part of the Silver Bow Creek NPL site. The site is contaminated with mine tailings from historic mining activities in Butte. A 1996 Record of Decision requires the removal of tailings in the floodplain and creek with subsequent establishment of a revegetated riparian zone and a fishable stream.

J. During the construction season of 2004, the State is expected to conduct remedial actions in a portion of the floodplain of the Creek which includes the area of the floodplain that the discharge from the Pipe ran through. The portion of the Pipe that runs through the Creek floodplain will be addressed through the State's remedial actions. (This AOC addresses the remaining Pipe which is not in the floodplain.)

K. After the remedial actions are taken by the State in the floodplain, it is possible that constituents associated with the Pipe could impact Parcel 26, including newly remediated areas.

V. CONCLUSIONS OF LAW

A. Rhodia is a "person" within the meaning of Section 1004(15) of the Act, 42 U.S.C. § 6903(15).

B. The Pipe and any wastes in, or released from, the Pipe are solid wastes as defined in Section 1004(27) of the Act, 42 U.S.C. § 6903(27).

C. Rhodia has contributed and/or is contributing to the handling of solid waste within the meaning of Section 7003 of the Act, 42 U.S.C. § 6973.

D. Handling of the Pipe, or solid waste in and around the Pipe, including leaving it in its present location, may present an imminent and substantial endangerment to health or the environment within the meaning of Section 7003 of the Act, 42 U.S.C. § 6973.

VI. ORDER

Based on the foregoing Findings of Fact and Conclusions of Law, EPA has determined that the activities required by this AOC are necessary to protect health or the environment. Therefore, EPA orders and Rhodia agrees to undertake and complete the following actions.

Rhodia does not agree with EPA's determinations in the Introduction, Findings of Fact and Conclusions of Law, but agrees to undertake the work described in this AOC and to perform such work in a manner consistent with this AOC, including all documents incorporated herein.

VII. WORK TO BE PERFORMED

A. By not later than October 31, 2004, Rhodia will excavate and remove the former discharge Pipe located outside of the floodplain and north of German Gulch Road and will plug the line at the road. Elemental phosphorus and phosphoric acid (collectively "Phosphorous Material") observed during excavation, will be drummed at the excavated site, or Pipe with such phosphorus material (and other materials requiring cleaning) will be transferred to the Plant for cleaning, followed by drumming of the removed phosphorus material. Each drum containing elemental phosphorus will be sent offsite for incineration.

B. Appendix A, which is incorporated herein by reference, is the approved workplan to conduct the work required by this AOC.

C. Within thirty (30) days of completion of work hereunder, Rhodia shall provide a written report to EPA detailing and confirming the completion of the activities conducted pursuant to this AOC ("Completion Report").

D. Copies of the documents required under this AOC are to be submitted to the following EPA contact:

Rosemary Rowe, Environmental Scientist
U.S. EPA, Region 8, Montana Office
10 West 15th Street, Suite 3200
Helena, Montana 59626-0096

VIII. ACCESS

A. Rhodia shall permit full access to property presently owned by Rhodia as permitted by law to EPA employees, contractors, agents, consultants, designees, representatives, State of Montana and local government representatives, as may be necessary for the purposes of oversight and implementation of this AOC.

B. Recognizing that work required by this AOC must be done on property not owned or controlled by Rhodia, Rhodia shall use its best efforts to obtain site access agreements from the present owner(s) of such property within thirty (30) days of the effective date of this AOC. Such access agreement shall allow for access as permitted by law to EPA employees, contractors, agents, consultants, designees, representatives, State of Montana and local government representatives, as may be necessary for the purposes of oversight and implementation of this AOC.

C. In the event that agreements for access are not obtained within thirty (30) days of the effective date of this AOC, Rhodia shall notify EPA in writing within seven (7) days thereafter regarding both the efforts undertaken to obtain access and its failure to obtain such agreements. EPA may, at its discretion, assist Rhodia in obtaining access. Failure to obtain access may be considered a force majeure event under Section XI.

D. Nothing in this section limits or otherwise affects EPA's right to access and entry pursuant to applicable law, including the Act and the Comprehensive Environmental, Response, Compensation, and Liability Act ("CERCLA"), 42 U.S.C. § 9601, et seq.

IX. AVAILABILITY AND RETENTION OF INFORMATION

A. Upon request, Rhodia shall make available to EPA, and shall retain, during the pendency of this AOC and for a period of five years after its termination, all records and documents in its possession, custody or control, or in the possession, custody or control of its contractors and subcontractors, which relate to the performance of this AOC, including but not limited to documents reflecting the results of any sampling, tests, or other data or information generated or acquired by Rhodia, or on Rhodia's behalf, with respect to the implementation of this AOC.

B. After the document retention period, Rhodia shall notify EPA at least 90 calendar days prior to the destruction of any such documents and, upon request by EPA, shall deliver the documents to EPA.

X. GENERAL PROVISIONS

A. All plans and documents submitted under any paragraph of this AOC shall, upon approval by EPA, be incorporated by reference in this AOC as if set forth fully herein.

B. Within ten days of selection of the contractor and in no event less than 10 days before mobilization, Rhodia shall provide the name, title, and qualifications of the personnel to be used in implementing the work required by this AOC.

C. The Appendix A workplan shall be subject only to the permits, approvals, regulations and other legal requirements specified therein, and work that is conducted consistent with such requirements shall be considered authorized, sufficient, and lawful by EPA.

D. Rhodia shall give notice to EPA thirty (30) or more days prior to transfer of ownership or operation of the Plant.

XI. FORCE MAJEURE

A. Rhodia shall perform the requirements of this AOC within the time limits set forth herein, unless the performance is prevented or delayed by events which constitute a force majeure. A "force majeure" is defined as any event arising from causes beyond the control of Rhodia, which could not have been overcome by due diligence and which delays or prevents performance by a date required by this AOC. Such events do not include, inter alia, increased costs of performance, changed economic circumstances, labor strikes, normal precipitation events (except to the extent that they prevent performing work safely), or failure to obtain federal, state and local permits, unless Rhodia has timely filed proper applications therefor. Rhodia shall have the burden of raising and proving all claims of force majeure under this Section.

B. Rhodia must notify EPA in writing within forty-eight (48) hours after Rhodia becomes aware of events which it knows or should know constitute a force majeure, unless such event may result in an imminent threat, in which case the notification must be as quickly as possible. Such notice shall estimate the anticipated length of delay, measures taken or to be taken to minimize the delay, and an estimated timetable for implementation of these measures. Failure to comply with this notice provision shall constitute a waiver of Rhodia's right to assert a force majeure claim.

C. If a delay or non-compliance has been or will be caused by a force majeure, the time for performance for that requirement shall be extended for a period equal to the delay resulting from such event, unless an imminent hazard is created or exists, in which case the time for performance shall be as quickly as possible under the circumstances. Any extension shall be accomplished through modification of this AOC. Such extension shall not alter the schedule for performance or completion of other tasks required by this AOC or approved Work Plans unless such schedule is or will be delayed by the force majeure and is also specifically altered by modification of the AOC or Work Plans.

XII. RESERVATION OF RIGHTS

A. Nothing in this AOC shall limit the information gathering, access, and response authority of the United States under any applicable law, nor shall it limit the authority of EPA to issue additional orders to Rhodia as may be necessary.

B. This AOC shall not be construed as a waiver or limitation of any rights, remedies, powers and/or authorities which EPA or Rhodia has under the Act, the CERCLA, or any other applicable law.

C. As provided in Section X. C., work conducted pursuant to and consistent with the approved work plan in Appendix A will be considered authorized, sufficient and lawful by EPA for meeting all requirements under this AOC. With respect to applicable laws and regulations relating to matters that are not addressed by this AOC, or, if Rhodia fails to comply with this AOC, EPA hereby reserves all of its statutory and regulatory powers, authorities, rights, remedies, both legal and equitable, which may pertain to Rhodia's failure to comply with any other such applicable laws and regulations and with any of the requirements of this AOC, including but not limited to, the right to disapprove of work performed by Rhodia, and the right to perform any portion of the work herein.

D. Except as otherwise expressly stated in this AOC and the approved workplan in Appendix A, compliance by Rhodia with the terms of this AOC shall not relieve Rhodia of its obligation to comply with the Act and/or any other applicable State or Federal law or regulation including without limitation, Montana Code Annotated Section 75-10-401, *et seq.*, associated Administrative Rules of Montana, or any condition of any permit issued under the Act or any other applicable law or regulation.

XIII. MODIFICATION

Except as otherwise provided in this AOC, no modification to this AOC shall be effective unless and until it is signed by both parties and filed with the Regional Hearing Clerk.

XV. EFFECTIVE AND TERMINATION DATES

A. This AOC shall become effective on the day after the date Rhodia receives a copy of the executed AOC.

B. Unless exigent circumstances exist, modifications made by the parties to this AOC are effective on the day after the date Rhodia receives a copy of the modification.

C. This AOC shall terminate upon Rhodia's receipt of written notice from EPA that Rhodia has demonstrated, to the satisfaction of EPA, that the requirements of this AOC, but not including record retention, have been satisfactorily completed.

XVI. SEVERABILITY

If any provision or authority of this AOC or the application of this AOC to any party or circumstance is held by any judicial or administrative authority to be invalid, the application of such provision to other parties or circumstances and the remainder of this AOC shall not be affected thereby and shall remain in full force.

XVII. PROJECT MANAGERS

All submissions and notifications should be made as required herein to:

For EPA

Lorraine Ross, Senior Enforcement Attorney
Legal Enforcement Program, USEPA, Region 8
Mail Code 8ENF-L
999 18th Street, Suite 300
Denver, CO 80202

For Rhodia

Daniel Bersanti
Plant Manager
Rhodia Inc.
P.O. Box 3146

Butte, MT 59702

IT IS SO ORDERED AND AGREED TO:

ENVIRONMENTAL PROTECTION AGENCY
REGION 8

Date: **SIGNED**_____ By:_____
John F. Wardell, Director
Montana Office
EPA Region 8

Date: _**5/19/04**_____ By:___**SIGNED**_____
Michael T. Risner
Legal Enforcement Program
EPA Region 8

RHODIA INC.

Date: _**5/13/04**_____ By:_**SIGNED**_____
Daniel Bersanti
Plant Manager

Rhodia Work Plan
For the
Plugging, Removal and Management of the Discharge Pipe

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Figure 1 Property Location and Discharge Pipe Location

1.0Introduction

This Work Plan is an Appendix to the Administrative Order on Consent between EPA, Region 8 and Rhodia Inc. under RCRA § 7003 regarding the concrete discharge pipe from Rhodia Inc.'s ("Rhodia") Silver Bow Plant, near Butte, Montana. The discharge pipe runs from the Plant northward under German Gulch Road and through property identified as Parcel 26 that is owned by Arco. Parcel 26 is located in Township 3 North, Range 9 West, Section 23, Silver Bow County, Montana. The southern boundary of Parcel 26 is approximately German Gulch Road; the northern boundary is approximately Silver Bow Creek; the eastern boundary is the east edge of Section 23; and the western boundary is the west edge of Section 23. The northern end of Parcel 26 is in the flood plain of Silver Bow Creek, but the remainder of Parcel 26 is not in the flood plain. Rhodia's Silver Bow Plant property and Parcel 26 are depicted on Figure 1.

Most of the discharge pipe (about 1500 linear feet) is located in the non-flood plain portion of Parcel 26, and will be referred to hereafter as the "Non-Flood Plain Pipe." Rhodia will remove this Non-Flood Plain Pipe. A small portion of the discharge pipe (about 80 linear feet) runs under German Gulch Road, and will be referred to hereafter as the "Road Pipe." This Road Pipe will be plugged with concrete and left in place. These removal and plugging operations are covered by this Work Plan. In addition, a small portion of the discharge pipe (about 50 linear feet) also extends into the flood plain of Parcel 26, and will be referred to hereafter as the "Flood Plain Pipe." This Flood Plain Pipe is not covered by the AOC or this Work Plan, but rather will be addressed by the work that the State and its contractor are conducting in the flood plain under Superfund authority. Figure 1 identifies the approximate location of all three segments of the discharge pipe. This Work Plan summarizes all proposed activities related to plugging the Road Pipe and removing, cleaning and disposing of the Non-Flood Plain Pipe.

1.1 Work Plan Activities

The following tasks are proposed.

- Excavate soil covering the Non-Flood Plain Pipe
- Segregate soil visibly containing elemental phosphorus or phosphoric acid
- Place phosphorus material in drums
- Remove and transport the Non-Flood Plain Pipe
- Clean and plug the Road Pipe
- Backfill the excavation and

grade and re-seed the area

•Clean all visible phosphorus material from the Non-Flood Plain Pipe

•Place phosphorus material cleaned from the Non-Flood Plain Pipe in drums

•Arrange for off-site transportation and disposal of clean Non-Flood Plain Pipe into a Subtitle D landfill

•Arrange for off-site transportation and incineration of drums of phosphorus material

1.2 Work Plan Organization

This document provides the following information:
Section 2.0 Proposed Field Activities and Methods
Section 3.0 Schedule
Section 4.0 Reporting
Section 5.0 Modifications

2.0Proposed Field Activities and Methods

2.1 Non-Flood Plain Pipe

This Section describes the anticipated work that will occur to excavate the Non-Flood Plain Pipe, clean it if necessary, and manage all residuals.

2.1.1 Site Preparation/Maintenance and Site Security

The following activities will be conducted prior to the onset of excavation activities:

Contractor will furnish and install erosion controls to prevent the erosion of soils and transport of silt, mud, and other debris away from the excavation area.

Project health and safety plan will be reviewed and updated by Contractor as necessary to include planned excavation activities.

The following activities will be conducted on an "as-needed" basis during soil excavation activities:

Contractor will provide measures necessary to control dust from the site. Water will be applied to the work and transportation areas to minimize the generation of dust from excavation, hauling of impacted soil, hauling clean soil, and backfilling the excavation area.

Every effort will be made to complete backfilling each day so the excavation is not left open. In the event this is not possible, all excavated areas left uncovered after normal working hours will be barricaded to prevent accidental access.

2.1.2 Excavation and Transport Equipment

It is anticipated that the contractor will use a track-mounted backhoe, or similar hydraulic equipment to remove the soil and the Non-Flood Plain Pipe. The bucket on the excavation equipment will be a toothless bucket or a toothed bucket with a plate welded over the teeth so that the teeth do not extend more than ½ inch beyond the plate. A small bulldozer or similar equipment and compaction equipment will be used to backfill the excavation.

2.1.3 Excavation/Backfilling Sequence

In general, the excavation will be completed from the south side of the excavation area (where the discharge line intersects German Gulch Road) to the north side (where the discharge line intersects

the south end of the flood plain of Silver Bow Creek). All work will be completed in

approximately (60) foot sections. Each (60) foot section will be excavated, Non-Flood Plain Pipe removed, and the area backfilled before work on the next section is started. Final grading of the excavation will be completed from the south side to the north side.

The excavator will first remove the soil fill above the Non-Flood Plain Pipe and place it along the side of the excavated area. The exposed pipe will be removed, visually inspected and placed in a roll-off container.

The contractor will inspect the soil beneath the removed section of the Non-Flood Plain Pipe for any visible phosphorus material. Any phosphorus material found will be placed in (30) gallon drums, following the procedure detailed in Attachment A. Drums of phosphorus material will be marked as "Hazardous Waste." The date each drum is filled will be marked on each container, and this will be the "start-date" for its 90-day accumulation. At the end of each day, the drums will be transported to the Rhodia Plant and unloaded on the drum storage pad awaiting off-site transportation and incineration. The drums will be managed at the Plant according to the less-than 90-day generator rules at 40 CFR § 262.34.

After the Non-Flood Plain Pipe is removed, the trench will be filled with soil excavated from above the Pipe and compacted. Where additional fill is needed, clean granular borrow material will be used to backfill the excavated area. Borrow material will be free of debris, roots, or other vegetation, and free of material with dimensions larger than 3 inches. Imported backfill will be placed in lifts of approximately 12 inches and then compacted The surface of the clean backfill will be graded and re-seeded for erosion control.

2.1.4 Screening for Phosphorus Material

Solely for purposes of completing the work required under this AOC, for waste streams generated by removal of the Pipe, the parties agree that any material that is observed to ignite or smoke (dense white smoke), to contain a yellow or black waxy solid, or to contain a white granular solid will be considered to be phosphorus material, and will be considered to meet the ignitability characteristic at 40 C.F.R. §261.21 or the reactivity characteristic at 40 C.F.R. §261.23. The phosphorus material will be placed in (30) gallon drums. All other soil can be used to backfill the excavated area. Waste determination documents will be prepared and maintained pursuant to 40 CFR § 262.11 and § 262.40(c) for the phosphorus material and all other wastes.

2.1.5 Transportation of Pipe

Loads of pipe that have been visually inspected and determined not to contain phosphorus material, in accordance with the methods specified in Section 2.1.4, may be either reused, sent directly to a Subtitle D landfill for disposal, or transported to the Plant awaiting later

transportation to the Subtitle D landfill, or disposal on-site, if EPA determines disposal on-site to be acceptable.

Pipe that has been determined to contain phosphorus material, or for which a determination has not yet been made, will be placed in roll-off containers. Each roll-off container of such Pipe will be marked as "Hazardous Waste," and the date when the first piece of pipe is placed in the roll-off will be the "start-date" for that container and all pipe therein for purposes of the 90-day accumulation period. The portion of the pipe that contains phosphorus material will be covered to prevent exposure to air while in the roll-off. After a roll-off is filled, it will be transported to the Plant for further observation, and as necessary, cleaning. Contractor shall use equipment designed to minimize the potential to spill material during transport. Trucks will follow the temporary construction road from the site to German Gulch Road. Trucks going to the Plant will exit German Gulch Road at the entrance to the plant and proceed to the Cleaning Pad. Once at the Plant, each truck will leave the roll-off near the Cleaning Pad described below. In the event phosphorus material is spilled in or on a roll-off, it will be decontaminated prior to leaving the Plant site. Decontamination will consist of brushing or washing the affected portion of the roll-off and collecting any phosphorus material and placing this material in a drum.

2.1.6 Cleaning of Pipe and Managing Residues

Pipe that contains phosphorus material will be cleaned in accordance with the procedures in Attachment B. The concrete Cleaning Pad is approximately 50' x 50' with an underlying leak collection system made of perforated pipe. Any leaks in the pad are directed to a standpipe, which can be monitored and pumped if needed. The Cleaning Pad consists of a drum storage area, staging area and cleaning area. The cleaning area includes an inclined pad designed to direct all excess cleaning water to the collection sump. The sump is covered with metal grating, with a sloped bottom, designed to collect all residue in the discharge end of the sump. The cleaning area will be surrounded on three sides by a barrier wall that is at least eight (8) feet high and made of metal, or some other non-flammable material. This walled cleaning pad will be considered acceptable by EPA even though it does not technically meet the definition of a tank, container, drip pad or containment building in 40 CFR § 262.34.

Each piece of Pipe and any other material or equipment requiring cleaning will be washed with hot water or a high-pressure washer**.** Spraying of the interior of the pipe will be done in a manner so that all water is directed downward through the pipe and onto the cleaning pad. The pipe will be treated to meet land disposal restriction standards at 40 CFR Part 268 in one of three ways:

(1) Meet the alternative treatment standard for debris at 40 CFR § 268.45, Table 1, Section A.1.e. This treatment standard involves the use of high pressure steam or water to achieve "a clean debris surface" and to remove at least 0.6 centimeters of the interior of

the pipe.

If the alternative treatment standard for debris described above cannot be met, one of the following two standards will be met:

(2) The alternative debris standard involving water washing and spraying at 40 CFR § 268.45, Table 1, Section A.2.a. and a waiver will be obtained regarding the thickness limit based on an approval of an "equivalent technology" demonstration under 40 CFR § 268.42(b), or

(3) The normal LDR treatment standard for D001 ignitable (low TOC), which require deactivating the pipe by removing the phosphorus materials and meeting universal treatment standards for underlying hazardous constituents.

All residue will be either collected in a drum or washed to the collection sump, where the residue can be removed and placed in a drum. All removed phosphorus material will be drummed. The phosphorus material in the drums will be covered with water to prevent the phosphorus material from being exposed to air, following the procedure detailed in Attachment A. Each drum will be covered loosely to facilitate measurement of the pH each working day, and, as necessary, the addition of a buffer to adjust the pH. After the pH adjusts to a neutral range, the cover of each drum will be tightened. The drums will be marked as "Hazardous Waste." Each drum will bear the 90-day accumulation period "start-date" that corresponds to the date on the roll-off of excavated Pipe from which the phosphorus material came. In all other respects, the drums will be managed according to the standards for less-than 90-day generators at 40 CFR § 262.34.

2.1.7 Disposal

All Pipe that did not require cleaning and all cleaned Pipe that no longer contains phosphorus material will be disposed off-site as a non-hazardous waste, reused, or retained on-site for disposal if EPA determines on-site disposal to be acceptable. The level of naturally occurring radioactive material (NORM) for the Pipe will be determined using a Ludlum 19 meter in accordance with its recommended sampling procedures. Prior to disposal or reuse of the Pipe, Rhodia will notify in writing any third-party receiver of any detected NORM level and provide a copy of such notice to EPA. Prior to disposal of Pipe, two core samples will be taken and analyzed for toxicity characteristic metals in accordance with the TCLP. If the toxicity characteristic levels are exceeded based on these samples and (any other confirmatory samples Rhodia elects to undertake), the Pipe will be managed in accordance with RCRA Subtitle C. All drums of phosphorus material will be manifested and sent off-site within 90 days as a Hazardous Waste for incineration and disposal and in accordance with the land disposal restriction requirements in 40 CFR Part 268. All drums of phosphorus material will be shipped from the

Plant to the incineration facility in accordance with Department of Transportation hazardous materials regulations in 49 CFR Subchapter C.

2.1.8 Procedures for Material Containing Only Phosphoric Acid

If discrete volumes of soil or residue removed from the Pipe are observed to contain only phosphoric acid (white granular solid) and not elemental phosphorus (ignites, smokes or a yellow or black waxy solid), and if there are no free liquids, such material may be placed in drums and managed as a non-hazardous waste.

2.1.9 Procedures for Reused Pipe

Discharge pipe that is excavated and intact may be reused, provided the following procedures are followed. Pipe that has been visually inspected and determined not to contain phosphorus material in accordance with the methods specified in Section 2.1.4 may be reused as is. Pipe that has been visually inspected and determined to contain phosphorus material or for which a determination has not yet been made will be cleaned using the procedures set forth in Section 2.1.6 and Attachment B. Prior to cleaning, the pipe will be managed and transported as specified in Section 2.1.5. All phosphorus material that is removed from such pipe will be managed in the same manner as specified in Sections 2.1.6 and 2.1.7.

2.2 Road Pipe

This Section describes the anticipated work that will occur to excavate and plug the Road Pipe.

2.2.1 Excavation/Backfilling Sequence

This portion of the project will start after the first (60) foot section of Non-Flood Plain Pipe on the south end of the excavation has been removed, but before this section is backfilled. Working from the manholes south and north of German Gulch Road, a high pressure water spray will be used to remove any phosphorus materials and sediment from the interior of the Road Pipe. phosphorus materials, if any, will be collected in the manholes, placed in drums, and managed as set forth in Section 2.1.3. After the cleaning is completed, concrete grout will be poured into the manhole directly south of German Gulch Road. The concrete grout will be allowed to flow down the pipe to the north until it is visible in the pipe on the north side of the road. At that time, a mechanical plug will be placed in the end of the pipe. Concrete grout will continue to be poured into the manhole until the line is full (approximately 25 cubic yards). When the plugging operation is complete, excavation will continue on the first section of Non-Flood Plain Pipe.

3.0Schedule

3.1 Schedule for Pipe Plugging and Removal and Backfilling

The Road Pipe will be plugged, the Non-Flood Plain Pipe will be removed, and the excavation area will be filled and graded no later than October 30, 2004.

3.2 Schedule for Cleaning and Removal of Residuals

Within 90 days from the excavation of a piece of the Non-Flood Plain Pipe, the section of Pipe will be cleaned as necessary, and all drums of phosphorus material associated with that section of Pipe will be transported off-site for incineration.

4.0Reporting

4.1 Completion Report

Within 30 days of completion of all work specified in the Work Plan, Rhodia shall provide EPA and MDEQ with a written report explaining the details and confirming the completion of the work pursuant to this Work Plan. For all reused pipe, the report will also specify how, where and by whom any pipe that is cleaned under Section 2.1.6 will be reused.

5.0Modifications

Any procedure herein may be modified if agreed to by Rhodia and US EPA Region 8. In the event of an emergency situation where obtaining prior agreement to modify this Work Plan is not feasible, Rhodia may alter procedures specified herein in a manner that will prevent or mitigate harm or the threat of harm to the workers, other humans and/or the environment. In such event, the changed procedures shall be reported as promptly as possible to US EPA Region 8. Any modification will involve notification and consultation with MDEQ.

Attachment A
Procedure – Drumming Phosphorus Material

Figure 1
Property Location and Discharge Pipe Location

JOB STEPS	HOW	
1. Contractor to determine through visual inspection if the soil underlying the removed Non-Flood Plain Pipe contains elemental phosphorus or phosphoric acid (phosphorus material).Required for the task.	A. Visually inspect the soil during the excavation for any signs of phosphorus material	Elemental waxy s expose Smoke emi burns irritati Phosphoric Contac
2. Contractor to remove any phosphorus material from the excavated area and place in (30) gallon drums.	Use a shovel or a small trackhoe to remove the phosphorus material from the excavation area. Physically place this phosphorus material in a (30) gallon drum containing about 5 gallons of water. Continue adding material to the drum, maintaining at least a 6" water cover over the material in the drum and about 2" of free space in the top of the drum. Cover each drum loosely with a lid until just prior to their transportation. Mark on each drum "Hazardous Waste" and the date on which the drum is filled.	Any phosp such a air. If water o slag. Have a 1 ½ protect excava Check the phosph the NIO STEL) TWA), locatio phosph these st Connect th supply. functio workin Always ha to prev contact On a daily of all p the job
3. Contractor to determine through visual inspection whether the material removed from the interior of the Road Pipe contains elemental phosphorus or phosphoric acid.	Follow same procedures as for Job Step #1.	Follow sam

A.
B.
C.
B.
D.
C.
E.
D.
E.
F.

4. Contractor to remove all phosphorus material collected in the manholes north and south of the Road Pipe and place in (30) gallon drums.	Remove phosphorus material from manholes with a shovel or pump, and follow same procedures B through E as for Job Step #2.	Follow san
5. Contractor to clean all equipment and tools used to drum any phosphorus material.	Wash each piece of equipment and all tools with water. Collect any remaining residue that contains phosphorus material and place in a (30) gallon drum, following the procedure in #2 above.	A. Daily personal pr handling o with water B. Use v any fires th
6. Contractor to transport drums to Rhodia's Silver Bow Plant and unload and place them on the Cleaning Pad.	A. By the end of each workday, all drums containing phosphorus material should be removed from the excavation area and placed on the drum storage area of the Cleaning Pad at the Rhodia plant.	A. Secure and pla such th B. Notify that pla C. When p position ("Hazar visible allow u and equ D. After p Rhodia until ad pH has causing personn agents t E. If neutr workin phosph the NIO STEL) TWA), location phosph these st

7. If discrete volumes of soil or sediment are observed to contain only phosphoric acid and not elemental phosphorus, Contractor to place such material in drums and segregate such drums on the drum storage area from those marked "Hazardous Waste."	**A. Visually inspect the soil and sediment and confirm that if it contains only a white, granular solid. If soil is observed to also contain phosphorus material, manage material as specified in Job Steps 1-4.**	A. Rhodia as nonh

	JOB STEPS	HOW	
	1. Determine if Non-Flood Plain Pipe that has been placed on the cleaning pad storage area contains elemental phosphorus or phosphoric acid (phosphorus material).required for the task.	Visually inspect the exterior and interior surfaces and particularly the joints of each piece of concrete Pipe for any signs of phosphorus material	A. Elemer waxy solid air may ign B. Smoke burns is a c the respira C. Phosph solid. Con D. Any ph in such a m phosphorus occurs and extinguish
A.	2. Segregate sections of Pipe determined not to contain phosphorus material.	Place Pipe determined not to contain phosphorus material in an area that will not be impacted by the cleaning operation.	Rhodia wil use.
A. B. C. D. E.	3. Place sections of Pipe that have been determined to contain phosphorus material (or Pipe for which a determination has not yet been made) on the Cleaning Pad.	A. Use a small trackhoe or mobile crane to move the Pipe into position.	Have a 1 ½ protecti pad. Check the phosph the NIO STEL) TWA), location phosph these st Connect th supply. functio workin If machine checkli Always ha prevent getting

	4. Clean each piece of Pipe to remove the phosphorus material	As necessary, spray wash both the inside and outside of the Pipe with hot water. Position the pipe so that water used to spray the interior of the pipe will flow downward toward the cleaning pad. With the pressure washer operating between 5000 p.s.i.g. and 10,000 p.s.i.g., pull a two-dimensional rotating cleaning head assembly through the full length of the inside of the pipe. Remove a minimum of .6 cm of concrete from the inside diameter of the pipe. Continue cleaning until the surface of the pipe where there was hazardous waste or contaminated soil is a "clean debris surface," which means "the surface, when viewed without magnification, shall be free of all visible contaminated soil and hazardous waste except that residual staining from soil and waste consisting of light shadows, slight streaks, or minor discolorations, and soil and waste in cracks, crevices, and pits may be present provided that such staining and waste and soil in cracks, crevices, and pits shall be limited to no more than 5% of each square inch of surface area." Advise Rhodia personnel if this "clean debris surface" standard is not being achieved. Collect all residue in a drum or wash it into the sump on the cleaning pad.	Drum the r filled d procedu Check the phosph the NIC STEL) TWA), location phosph these st Maintain above any Daily, dec personal pr contact wit with water in a drum c pad. Use water
A.	5. Drum residue from sump and place all drums of residue on designated area on cleaning pad.	A. Remove all residue, including water from the sump and place in 30 gallon drums in accordance with the procedures in Attachment A. B. Close and mark all drums as specified in Attachment A. C. Move all drums to the Rhodia-designated accumulation area on the cleaning pad. D. Position drums so that their markings ("Hazardous Waste" and their date of filling) are visible and there is sufficient aisle space to allow unobstructed movement of personnel and equipment. E. Notify Rhodia of any bulging drums, and add neutralizing agents, if necessary.	Have a 1 ½ protecti pad. B. Check t the pho above t min. ST (8-hr. T upwind until th both of Maintain a above a Daily, dec persona contact washin Put all sump o
C.			
D.			

A.	6. If discrete volumes of residue from the Pipe are observed to contain only phosphoric acid and not elemental phosphorus, Contractor to place such material in drums and segregate such drums on the drum storage area from those marked "Hazardous Waste."	Visually inspect the residue from the Pipe. If it contains only a white, granular solid, the residue should be placed in drums that do not contain elemental phosphorus or water. If Pipe residue is observed to contain phosphorus material, manage material as specified in Job Step 5.	A. Rhodia phosph waste.
	7. Segregate cleaned Pipe.	A. After cleaning, place all cleaned Pipe in an area that will not be impacted by the cleaning operation.	A. Rhodia the pie

IN THE MATTER OF: **RHODIA, INC.**
Proceeding Under § 7003 of the Solid Waste Disposal Act, as amended, 42 U.S.C. § 6973

DOCKET NO.: **RCRA-08-2004-0003**

CERTIFICATE OF SERVICE

I hereby certify that the original and one copy of the Administrative Order on Consent, for the docket number indicated above, was hand-delivered to the Regional Hearing Clerk, EPA Region 8, 999 18th Street, Denver, Colorado 80202.

And a true copy of the same was sent by certified mail, return receipt requested to:

Ken Kastner
Bryan Cave LLP
700 Thirteenth Street, NW
Washington, DC 20005-3960

Date: **19 May, 2004** By: **Lorrane M. Ross**

THIS DOCUMENT WAS FILED IN THE REGIONAL HEARING CLERK'S OFFICE ON MAY 19, 2004.